Defense Acquisition University

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A PBL BLUEPRINT
Implementing PBL

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PBL
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DAU – Capital NE

New DOD 5000 Policy

Total Systems Approach. The PM shall be the single point of accountability for accomplishment of program objectives for total life cycle systems management, including sustainment.

Performance-Based Logistics. PMs shall develop and implement performance-based logistics strategies that optimize total system availability while minimizing cost and logistics footprint. Sustainment strategies shall include the best use of public and private sector capabilities through government/industry partnering initiatives, in accordance with statutory requirements.

OK, But How Do I Get FROM HERE TO HERE?

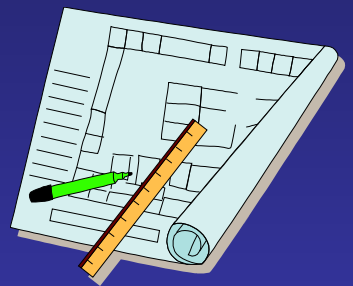
Traditional Support Strategy

Performance Based Support Strategy

The PBL Blueprint: Implementing PBL

- *Define supportability requirements early*
- *Establish the PBL Team*
- *Define/Document System Baseline*
- *Identify Performance Outcomes/Metrics*
- *Select Product Support Integrator*
- *Develop Workload Allocation/Sourcing Plan*
- *Develop Supply Chain Management Model*
- *Develop Performance Based Agreements*
- *Identify/Establish/Document Funding Flows*
- *Implement/Manage PBL Strategy*

It’s a big effort, but…



Sometimes you just gotta dive in

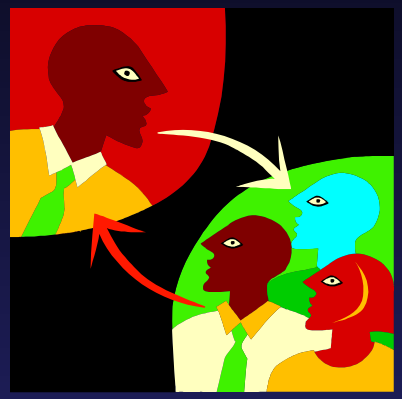
It All Starts with the Requirements…

- ***CJCSI 3170.01C - JOINT CAPABILITIES INTEGRATION AND DEVELOPMENT SYSTEM***
- ***A <u>SIGNIFICANT</u> improvement in emphasis on supportability***
- ***Focuses on CAPABILITIES versus REQUIREMENTS***
  - ***A capability is performance in an operational environment that is reliable, transportable, supportable, and affordable***
- ***Consistent linking of supportability with performance (e.g. KPPs) throughout the document***
- ***A critical facilitator for PBL support planning and development***

"The most important time to influence supportability Is early in the process – ideally when defining requirements"

Establish the PBL Team

- Program Office (Chair)
- Customers/Users
- Owners/Operators
- OEMs/Contractors
- Organic Support Organizations



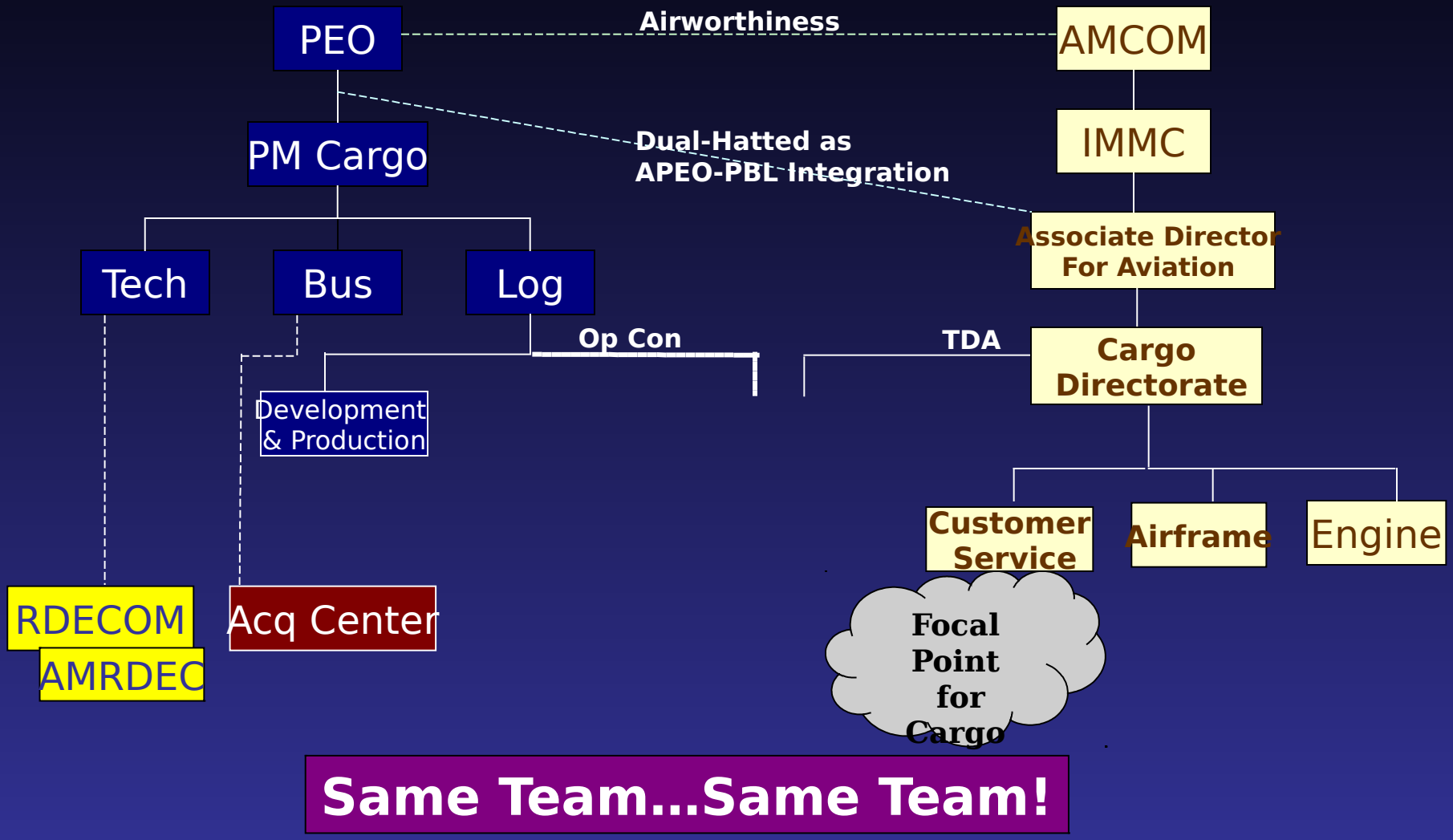
PBL changes the public/private relationship – from “arms length” to “Arm in Arm”

New Concepts + Old Organization = Dysfunctional Old Organizati

Not sure this guy can be a PBL integrator

FLE/PBL Sub-Optimized…No Transformation!

Notional Collaborative Organization



Same Team…Same Team!

Define/Document System Baseline

- Scope (Resources, Equipment, Location)
- Stakeholders
  - Owners/Operators
  - Users/Customers
  - Program Office
  - Support Providers
  - Service Corporate Structure
- Current Performance Shortfalls
- Performance Goals/Objectives
- Operating and Support Costs
  - Refine as necessary over time

You can't get to where you want to go, until you know where you are now!

F-117 Performance Targets

Metric	Standard	Weight
Non-Mission Capable Supply	5%	25
Mission Capable Supply Delivery	72 Hours	15
Readiness Spares Kits	96%	15
Depot Quality: # of Discrepancy Reports	0-20	15
Depot Delivery Days Late	0 days	15
Delinquent Deficiency Report Responses	1 Delinquency	10
Weapon System Trainer Availability	99%	5

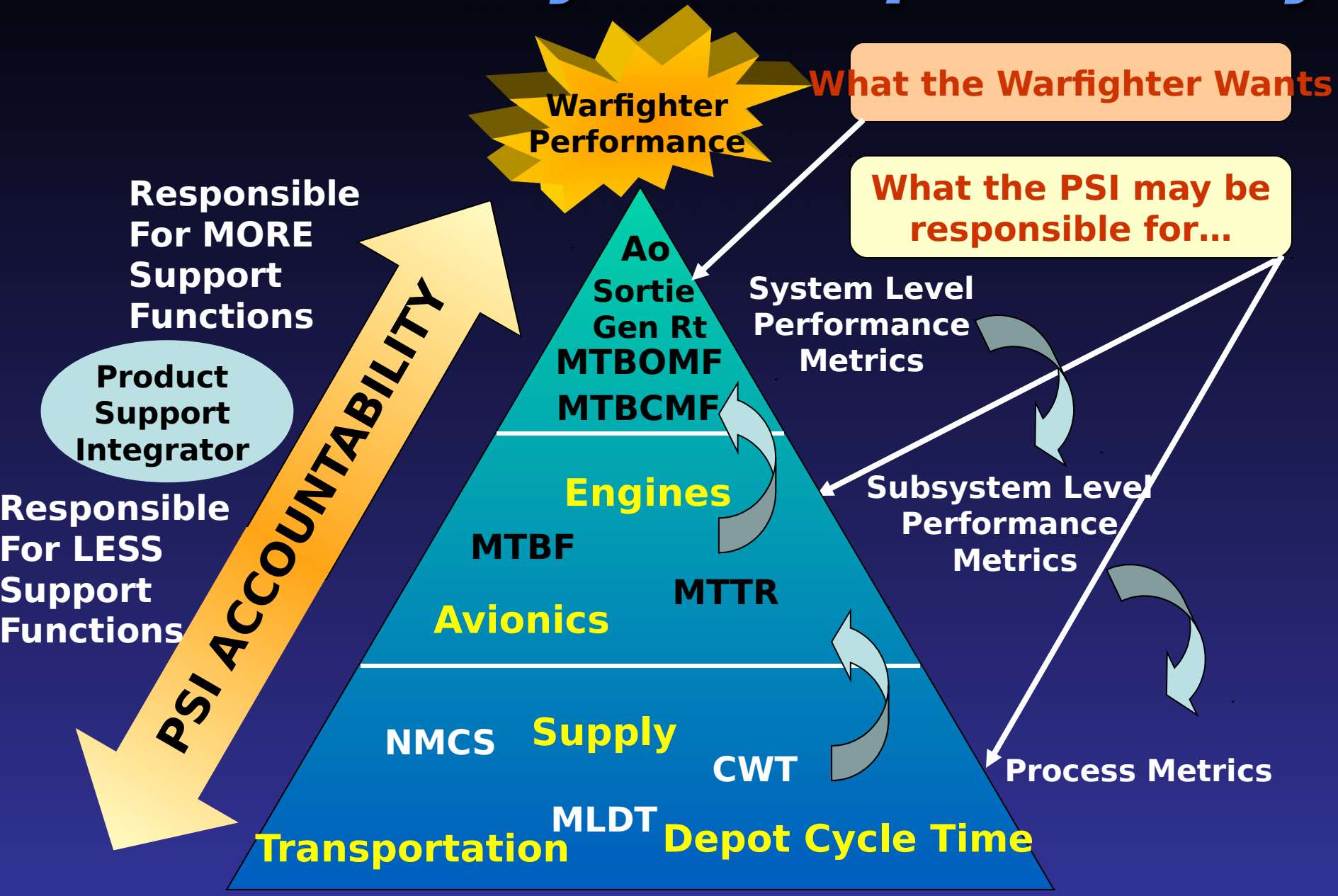
More Example Targets…

System	Metric	Target
Navy ARC-210 Radio	Replacement Part Availability Guarantee	85%
Navy ALR-67 (v) 3 Radar Warning System	Replacement Part Availability Guarantee	90%
Navy ALR-67 (v) 3 Radar Warning System	System Reliability Improvement (MTBF)	300 hours to 475 by the end of 6 year contract
Navy T-700 Engine Rotors	Replacement Part Availability Guarantee	48 hour shipments
Navy APU	•Replacement Part Availability Guarantee •System Reliability improvement	• 90% • % based on A/C type
Delinquent Deficiency Report Responses	Availability/Delivery Metric	90%

Identify Performance Metrics

- *Top Level – What does the Warfighter Need?*
  - *System Level: Availability, up-time, etc.*
  - *Lower Level*
    - *Component: MTBF, MTBCF, similar*
  - *Identify Critical Driving Metrics*
    - *Not Mission Capable – Supply (NMCS)*
    - *Depot cycle time*
    - *Deficiency Reports*
    - *Similar…*

Accountability = Responsibility



Select Product Support Integrator

Buys Performance

Warfighter

Performance

Risk

Ensures Performance

Government Program Manager

Product Support Integrator

Supply/DLA

Depot Repair

Contract Support

Transportation

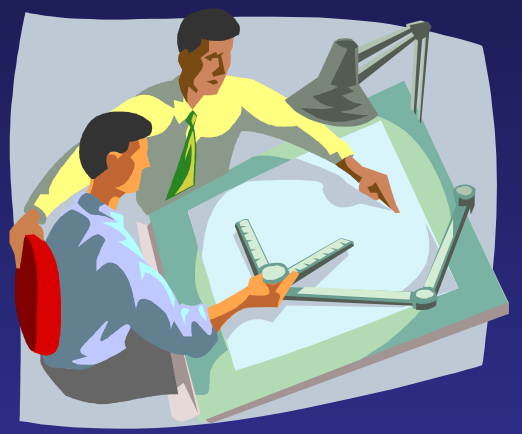
Common Commodities

Organizational Maintenance

Provides Support

Develop Workload Allocation/Sourcing Plan

- *Total System Support is comprised of many functions*
- *An effective support strategy considers "best competencies" and partnering opportunities*
- *And factors in Title 10 requirements….*
- *To identify what is BEST for EACH support function in terms of:*
  - *Capability*
  - *Skills*
  - *Infrastructure*
  - *Opportunities for partnering*
  - *Compliance with Title 10*
  - *Public/Private flexibility*
  - *Affordability*



Identify Public/Private Capabilities & Competencies

- ***Industry Partner Core Competencies include***
  - ***Production and Manufacturing***
  - ***Configuration Management***
  - ***Technical Data Package Management***
  - ***Subcontractor Management***
  - ***Technical Data***
  - ***Maintenance***
  - ***Information Networking***
  - ***Systems Engineering***

- ***DoD Core Competencies include***
  - ***Existing Capital Investment in Logistics Infrastructure***
  - ***Skilled and Trained Workforce***
  - ***Ability to accomplish unique, marginal profit workloads not attractive to industry***
  - ***Significant opportunities for intra, inter-Service sharing of resources***

EXAMPLE JSTARS Workload Breakdown Structure

GC GOVERNMENT CORE
G GOVERNMENT
P PRIME CONTRACTOR
S PRIME WITH COMPETITION AT 2ND TIER
PRIME CONTRACTOR VIA SLA

- Contracting
- Budgets
- Requirements
- Engineering Authority/Accountability

USAF AUTHORITY & OVERSIGHT
G

PRIME INTEGRATOR
P

Public/Private Partnering

Combine Best Public/Private Capabilities

GSS - Ground Support System
MCTS - Mission Crew Training System
AMT - Aircraft Maintenance Trainer
MSS - Mission Support Subsystem
TMSS - Transportable Mission Support Subsystem
FCTS - Flight Crew Training System
SMS - Software Maintenance Subsystem

Partnership
COMMON SPARES
G

Partnership
ENGINES
GC

AIRCRAFT PDM
P | S

FIELD SVC REPS
P

Partnership
SOFTWARE *
GC | P | S

SUSTAINING ENG
G | P

E-8C SPARES
P | S

TECH DATA
G | P

Partnership
PME MAINTENANCE
GC | P | S

FCTS
S

PME MTS
S

IN FLIGHT TRAINER
S

GSS

AMT
S

MISSION CREW TRAINING
S

MCTS
G

SMS
G

MSS/TMSS
G

* Includes OFP Mx and GSS Softw
Merge, Block 10 Baseline

me Contractor Integrates Government/Industry Resources → TS

The Real Challenge …
Integrating all the "Solutions"

Develop Supply Chain Management Model

Items	Materiel Mgmt Wholesale	Repair	Retail
Unique Reparables	Contractor	Contractor	Organic
Common Reparables	Organic	Organic	Organic
Unique Consumables	Contractor (DLA preferred source)	N/A	Organic
Common Consumables	DLA	N/A	Organic

DLA Role in F/A-18 E/F Integrated Readiness Support Team (FIRST) PBL

- DLA transferred F/A-18 E/F unique consumable item management to Navy's Boeing ICP after inventory was bought out
- DLA is managing/supplying common consumable items coded to the F/A-18 E/F for I and O Level Navy/USMC Customers
  - 7,327 NSNs
  - $62.9M in inventory; $52.7M due in under contracts
  - $167.2M in sales last 24 months across all systems
- Boeing plans to use DLA as source of supply for common consumable items when best value
  - To support depot level maintenance performed by Boeing, its subcontractors, and the 3 Navy Depots in the partnership

93.0% Supply Availability

Innovative PBL Strategies

CECOM Organic PBL Concept

Challenges facing the PEO/PM

- Responsiveness
- Deployability
- Versatility
- Sustainability
- Lethality
- Trainability
- Survivability
- Agility

PBA

Integrated Data Environment

Weapon System IPT Grid

Integrated Logistics Support Manager

Mission Area integration provides matrix TLCSM support

Product Support Integrator

Supportability IPT Grid

Knowledge Management Center

LOG XXI web site

Virtual Acquisition Planning for Industry

Associate Contractor Agreements:
- Sub-Tier Vendors
- Other DoD Components
- OEM Organic Depot

Organic Management Processes

- Mat'l Release & Fielding
- Readiness/Metrics
- Integrate Supply Chains
- Business Case Analyses
- Policy/Guidance
- Budget Development
- Support Strategy

Lessons learned, exchanged and integrated across all programs!

PERFORMANCE BASED SOLUTIONS!

The PBA is the *Agreement to meet the warfighter's demands!*

Navy Trainer Support

- *Innovative PBL Approach*
- *Contractor "Open the Door Costs" on a Cost Plus basis, e.g.:*
  - *Basic manning of wholesale supply function*
  - *Routine training*
  - *Routine update of Technical Data*
- *Performance Outcomes incentivized on Flying Hours, e.g.:*
  - *Supply effectiveness*
  - *Repair turnaround time*
  - *Depot cycle time*
- *Promotes "win-win" relationship – Govt get what's important to them.*

PBL Lab in Support Area

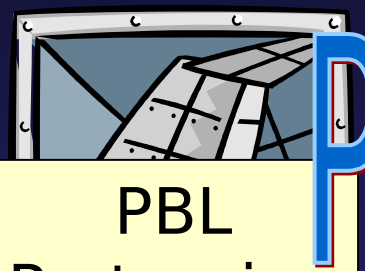
Product Support is Varied and Complex.

Total System Support Responsibility

Product Support Integrator

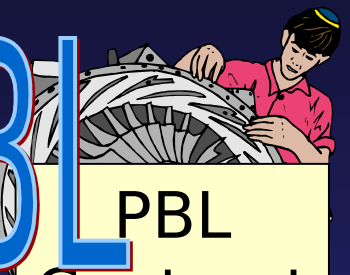
Supply | Depot Mx | Engines | Avionics

PBL Contract

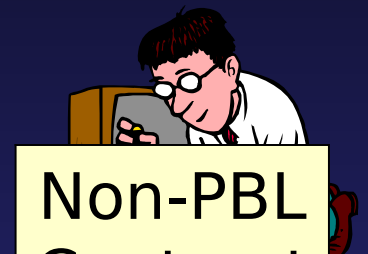


PBL Partnering

PBL



PBL Contract



Non-PBL Contract

It's NOT All or Nothing!

Landing Gear | Software | Communications | Transportation

SLA Organic

Non-PBL Contract

Non-PBL Contract

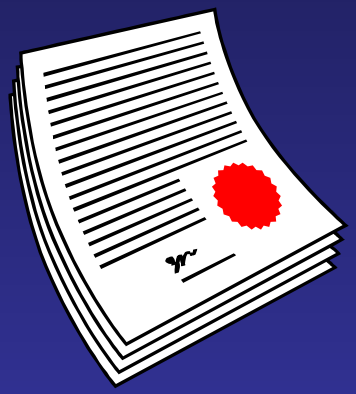
Non-PBL Organic

DOD 5000 Policy

The PM shall work with the users to document performance and support requirements in performance agreements specifying objectives outcomes, measures, resource commitments and stakeholder responsibilities

Performance Based Agreements

- Performance Based Agreements are a critical element in implementing PBL
  - Define Expectations of Force Provider
  - Define range of support requirements
  - Basis for negotiating support contracts
  - Ensure accountability in meeting Warfighter requirements
- Getting them right is critical!



Performance-Based Agreements

What the PBA Specifies

Product Support Integrator

- Contractual
- Measurable
- Incentivized
- Accountable

PBA

PM

PBA

What the Warfighter Wants

Warfighter/Force Provider

- Availability
- Readiness
- Footprint
- Responsive

METRICS

- Not Mission Capable - Supply
- Supply Issue Effectiveness
- Repair Turnaround Time

- Sortie Generation Rate
- Ao
- MTBMCF

PM Community of Practice

Edit View Favorites Tools Help

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Go

Acquisition Community Connection

Where the AT&L Workforce Meets to Share Knowledge

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ACC > Logistics Management > Support Strategies > PBL > Performance Based Agreements

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cothranj (Editor) Eniwetok, Kwajalein | Log out

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Performance Based Agreements

Date Added: 2003-07-30 8:28 am Eniwetok, Kwajalein

Date Modified: 2003-07-31 1:04 am Eniwetok, Kwajalein

Comment on this page.

Performance Based Agreements represent formal documentation of the performance requirements of the warfighter, as well as the level and quality of support necessary to meet the performance objectives. They may take the form of formal contracts with commercial support providers, or Memorandums of Agreement (or similar format) with organic providers. They take into consideration resources available for support and set support levels accordingly. In that context, Performance Based Agreements are not unconstrained statements of what the warfighter wants, but rather the documentation of the realistic performance and support that can be adequately resourced.

presentations

- 10-03-02 Buying Performance Workshop - Air Force Brief
- 10-03-02 Buying Performance Workshop - Army Brief
- 10-03-02 Buying Performance Workshop - Industry Brief
- 10-03-02 Buying Performance Workshop - NAVSUP Brief
- 10-03-02 Buying Performance Workshop - OSD Brief

examples

- e.g. B-1B System Service Level Agreement (SLA)
- e.g. E-3 System Service Level Agreement

July 2003

		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

Tools

- Members
- Find in Discussions
- Filter
- Calendar
- Email Groups

What's New

- Buying Performance Workshop 3 OCT 02
- 10-03-02 Buying Performance Workshop - OSD Brief

Internet

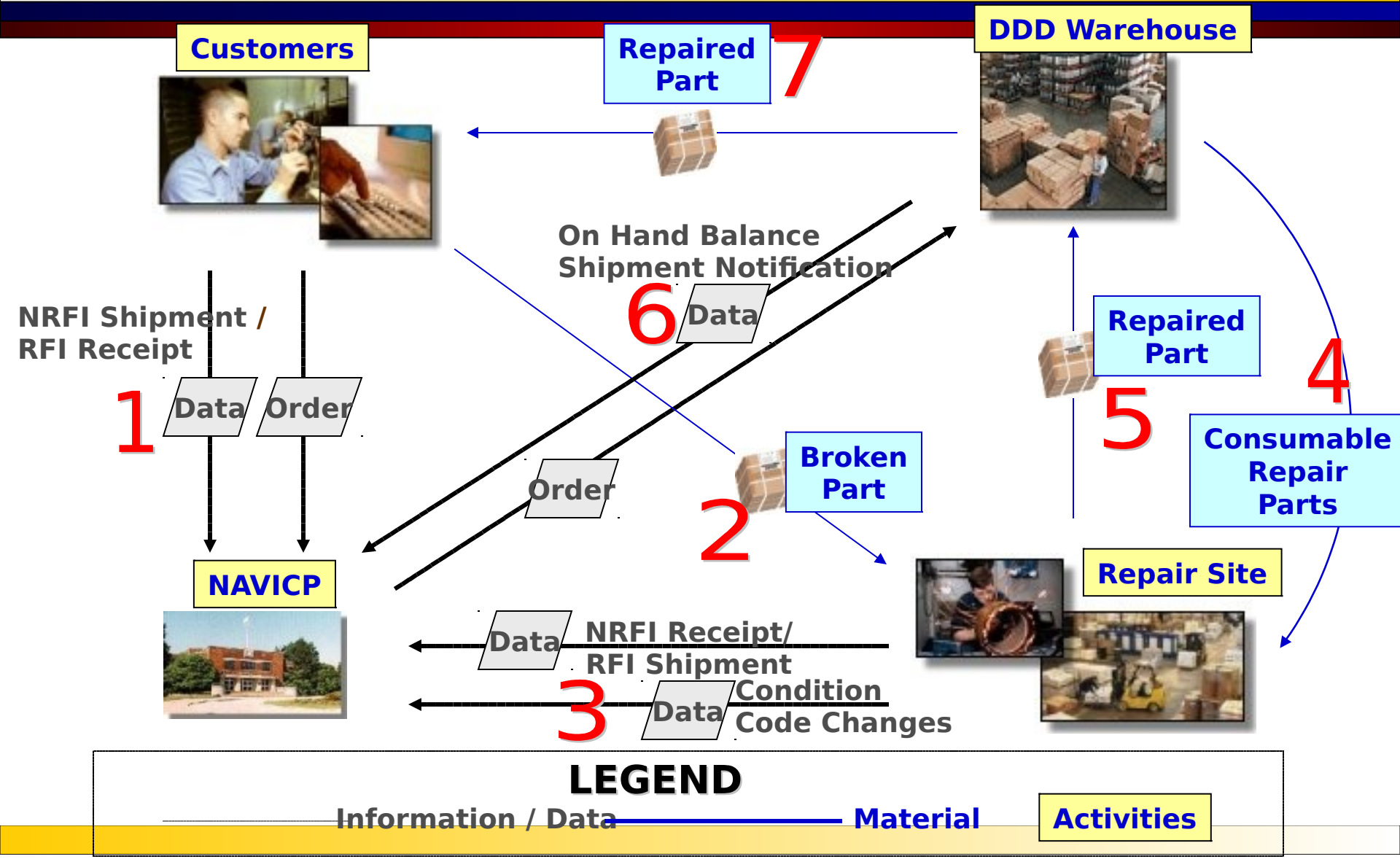
Develop/Establish Funding Flows

- For contracts, funds appropriated to customer, “set aside” for must-pay bill for PBL contract, administered/monitored by PM
- For organic agreements, documented resource requirements in PBAs
  - Agreement with Depot/Source of Repair
  - Agreement with Customer/Warfighter
  - Where Contractor/Organic partnering, Contractor Prime monitors/assesses organic performance
- **Yes, Contract PBL can be done through the Working Capital Fund…**
  - Navy examples at NAVICPs

NAVSUP
Naval Inventory Control Point

PBL Benefits

Simplified "As Is" Information & Part Flows



NAVSUP
Naval Inventory Control Point

PBL Benefits

"With PBL" Information & Part Flows

Customers

Uses Navy Working Capital Fund

NRFI Shipment / RFI Receipt

1

Data Order

4 Repaired Part

Broken Part

2

PBL Provider

NAVICP

Order

Data

NRFI Receipt/ RFI Shipment/ On Hand Balance

3

LEGEND

Information / Data — Material

Activities

Implement PBL Strategy

- *Sign Contracts & Performance Agreements*
- *Begin PM oversight, management, monitoring, and assessment role*
- *Continuous monitoring of strategy, assess and revise as necessary; adjust PBAs; revise within scope of contract flexibility*
- *Continued teaming of stakeholders to review status, progress, issues, and objectives*

Program Manager Oversight

- PM Oversight Role
  - Develop Performance Assessment Plan
  - Monitor PSI performance vis-à-vis Performance Based Agreements/contracts
  - Revise/Adjust as necessary
    - Product Support Strategy
    - PBAs
- Act as agent for Warfighter
  - Certify PSI performance
  - Approve payment of incentives
  - Take a “hands on” approach – DON’T assume Contracts/Agreements will be self-regulated

Backup

WHY PBL?

Traditional Support

- Multiple sources of support (not integrated)
- Multiple POCs – no single Belly Button
- "Best Effort" support
- Competing priorities
- Statutory, Policy, Financial barriers
- Track record for support is not stellar
- Commodity focused
- Almost always funded at less than 100%

Performance-Based Support

- Fully integrated support chain
- Single Accountable POC
- Guaranteed outputs
- Your workload is the top priority
- Far fewer barriers – and the Trend is decreasing
- Excellent record of success to-date
- Weapon System focused
- Almost always funded at 100%

PBL does not ignore the ILS Elements – they are critical for Planning and developing a support strategy - - - but PBL manages Them from a higher level: Performance Outcomes

Public-Private Partnerships

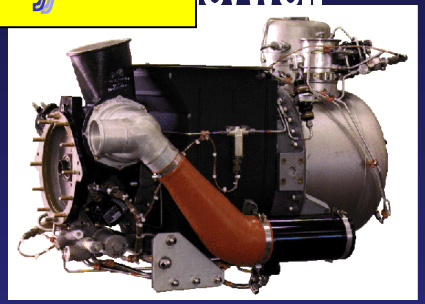
Auxiliary Power Unit (APU)
Partners for Total Logistics Support

- **Supports 4 different APUs used on C-2, F/A-18, S-3 and P-3 aircraft.**
- **Public / Private Partnership**
  - **Honeywell... Program Management**
  - **NADEP Cherry Point... Touch Labor**
- **10-Yr Performance Based, Firm Fixed Price (5 year base & 5 one-year options)**
- **25% - 200+% Reliability Improvement Guarantees**
- **FY-02 Results:**
  - **Average Delivery Time 6.5 Days Compared to 35 Days**
  - **98% of Requisitions Filled Within Contractural R**
  - **S 9**
  - **Zero Repeats awaiting parts**

Title 10 Compliant!

NAVICP Honeywell

NADEP Cherry Point



PLUS:

CAT® Logistics

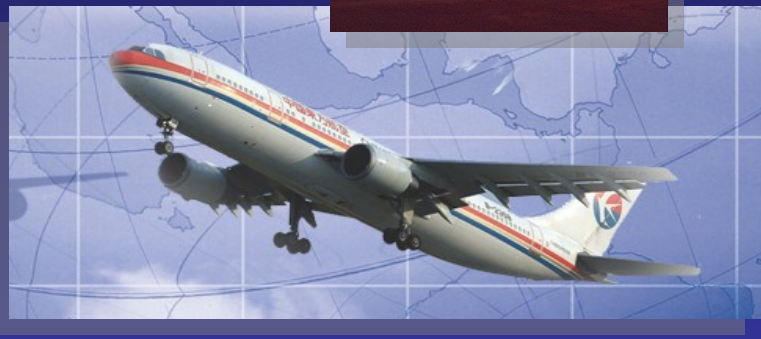
On-Line Shipping & Inv Mgmt

Surged to meet all operational requirements for Operation Enduring Freedom!

Performance Examples Commercial Customers

- **CRJ Dispatch 100 Program:**
  - Mission readiness 99+%
  - Reliability improved 16%
  - Total supply chain time reduced 36%
  - Repair turn around time reduced 30%
- **Commerc**

Commercial Platforms	Customers	Owned Spares	Target Dispatch	Actual Dispatch
CRJ	5 Operators	Collins	95-98%	99%
SAAB	3 Operators	Collins	95-98%	99%
Fractionals	3 Operators	Collins	95%	99%
B737	1 Major	Collins	94%	99%
B747	3 Majors	Collins	98%	99%
B757	1 Major	Customer	98%	99%
B767	3 Majors	Collins	95-99%	99%
B777	4 Majors	Collins	98.5%	99%
Other	Various Small	Customer/ Collins	95%	99%



Performance Examples Military/Government Customers

- **USCG PBL Program:**
  - Mission readiness improved to 99+%
  - Reliability improved by 30%
  - Total supply chain cycle time reduced by 85%
  - Administrative costs reduced by $320,000/year

- **USN ARC-210 PBL Program:**
  - Mission readiness improved to 97%+
  - Total cost savings expressed by US Navy in first year is $5.4 million
  - More than 30 Platforms and 1800 Aircraft

- **UK Royal Air Force E-3D AWACS:**
  - Prime integrator for new airborne HF
  - Deployed extensively around the globe
  - 10 Year PBL – repairs, logistics, performance guarantee

Applying Best Commercial Practices

Potential PBL Benefits

To the Government

- Increased Readiness/Ops capability
  - Improved reliability, maintainabi
  - and supportability characteristi
  - More reliable supply chain
  - Continuing technology refreshm
- Reduced life-cycle costs associated v
  - Logistics infrastructure/footprint
  - Non-recurring costs and in-servi
  - sustainment costs
  - Buying performance vice invento
  - Integrated supply chains
  - Use of best commercial practices
- Avoids or Reduces
  - Technical obsolescence
  - Diminishing Manufacturing Sour
  - Increasing O&S costs over life cy
  - Budget instability
  - Risk

To the Commercial Provide

- Increased Profit Potential
  - improved product and process
  - performance
  - Ability to earn contractual incentive
  - Ability to minimize cost structure
- Long Term Contract Security
  - Ability to realize return on
  - investments
  - Known revenue stream
- Ability to optimize capitalization of
- infrastructure
  - Expanded aftermarket activities
  - Retention of design control and
  - data rights
  - More flexibility in how to provide
  - service
  - Reduces mandated Government
  - processes and specification

Product Support Range of Options

Increasing Government Risk ⟷ Decreasing Government Risk

Traditional Support

- Govt buys Transactional services, not Performance
- No performance metrics
- CLS auxiliary contracts
- Gov't manages supply chain
- Gov't maintains full configuration management
- Gov't provides O/I/D level maintenance
- Gov't provides organic training

Contractor Supply Role

- Accountable for Supply Chain Mgmt
- Supply related metrics
- Profits at risk vs. performance
- Limited configuration management
- Supplier warehouses customer owned spares
- Direct spares support to maintenance lines
- Training by the hour
- Possible

PBL at Sub System Level

- Accountable for defined support systems – NOT a PSI
- Performance metrics at sub-system level
- Long term performance contract
- Profits at risk vs. performance
- Configuration Mgmt for assigned systems
- Supplier owns spares
- Supplier provides some I/D level

Total System Support Responsibility

- Single point of accountability for all support
- Performance metrics at highest level
- Long term performance contract
- Profits at risk vs. performance
- Configuration control
- Supplier owns spares, SE, training systems
- Supplier provides all I/D level maintenance
- Public/Private partnership